

Amendment to the Claims:

This listing of claims will replace all prior versions.

Claim 1 (currently amended): A method for producing a type III antifreeze protein (AFP) which method comprises expressing a nucleic acid sequence encoding the type III AFP in a fungal host cell, wherein the fungal host cell is *Saccharomyces cerevisiae*; and is a mutant strain made deficient in protein mannosyl transferase 1 (pmt1) and/or protein mannosyl transferase 2 (pmt2); and wherein the type III AFP has at least 80% amino acid sequence identity with SEQ ID NO: 1 and has increased ice recrystallization inhibitory activity as compared to glycosylated type III AFP.

Claims 2-5 (canceled)

Claim 6 (previously presented): A method according to claim 1 wherein the host cell is a pmt1-deficient mutant strain.

Claim 7 (previously presented): A method according to claim 1 wherein the host cell is a pmt2-deficient mutant strain.

Claim 8 (canceled)

Claim 9 (canceled)

Claims 10-11 (canceled)

Claim 12 (previously presented): A method according to claim 6 wherein the host cell is a pmt2-deficient mutant strain.

Claim 13 (canceled)

Claim 14 (previously presented): A method according to claim 1 wherein the type III AFP has at least 90% amino acid sequence identity with SEQ ID NO: 1.

Claim 15 (previously presented): A method according to claim 1 wherein the type III AFP has at least 95% amino acid sequence identity with SEQ ID NO: 1.

Claim 16 (previously presented): A method according to claim 1 wherein the type III AFP comprises the amino acid sequence as set forth in SEQ ID NO: 1.

Claims 17-18 (canceled)

Claim 19 (currently amended): A method for producing a type III HPLC-12 antifreeze protein (AFP) and functional equivalents thereof comprising expressing a nucleic acid sequence encoding the type III HPLC-12 AFP ~~and functional equivalents thereof having at least 80% amino acid sequence identity with SEQ ID NO: 4~~ in a *Saccharomyces cerevisiae* host cell which is a mutant strain made deficient in pmt1 and/or pmt2, wherein the expressed type III HPLC-12 AFP has increased ice recrystallization inhibitory activity in comparison to glycosylated type III HPLC-12 AFP.